In the Claims:

Claims 1 to 7 (Canceled).

8. (Currently amended) A milling method for the production of a structural component <u>having a desired final contour to be produced by milling</u> from at least one material that is difficult to machine by chip-cutting, while producing depressions with at least one sidewall, whereby a milling tool is moved along at least one defined tool path for the milling, characterized in that, in addition to the or each tool path, at least one collision contour respectively corresponding to a surface or an edge of the at least one sidewall <u>of the desired final contour</u> of the structural component to be produced is defined and the position or orientation of the milling tool along the or each tool path relative to the or each collision contour is monitored in an automated comparison of the or each tool path with the or each collision contour to determine whether an expected collision exists between the milling tool and the at least one collision contour corresponding to the surface or the edge <u>of the desired final contour</u> of the structural component to be produced, and if the expected collision is determined to exist then the position or orientation of the milling tool is changed and/or an error message is generated to avoid the structural component being damaged by the milling tool.

9. (Previously presented) The method according to claim 8, characterized in that the position or orientation of the milling tool along the or each tool path relative to the structural component to be produced are determined by a tool vector, whereby the tool vector is defined with a cutting advance angle and a pitch angle of the milling tool.

10. (Previously presented) The method according to claim 8, characterized in that, for the milling of the depressions that are bounded by two of the sidewalls, two collision contours are defined, of which a first collision contour lies on a first said sidewall and a second collision contour lies on a second said sidewall.

11. (Previously presented) The method according to claim 10, characterized in that, when the milling tool damages the collision contour that lies on the sidewall that is currently to be milled, the position or orientation of the milling tool is changed so that the expected collision of the milling tool with the collision contour is avoided.

12. (Previously presented) The method according to claim 11, characterized in that a pitch angle of a tool vector is increased for changing the position or orientation of the

milling tool so that the expected collision of the milling tool with the collision contour is avoided.

13. (Previously presented) The method according to claim 10, characterized in that, when the milling tool is expected to collide with the collision contour that lies on the sidewall lying opposite the sidewall that is currently to be milled, an error protocol and/or an error message is generated.

14. (Previously presented) The method according to claim 13, characterized in that the error protocol is used for the dimensioning of the milling tool.

15. (Previously presented) The method according to claim 13, characterized in that the error protocol is used for determining a miller diameter of the milling tool.

16. (Previously presented) The method according to claim 8, characterized in that the structural component to be produced is an integral bladed rotor for a gas turbine, wherein the depressions form flow channels and the sidewalls form blade surfaces of the integral bladed rotor.

17. (Previously presented) The method according to claim 8, wherein the error message is generated if the milling tool

is expected to collide with at least one of the collision contours.

Claims **18 and 19** (Canceled).

20. (Previously presented) The method according to claim 19, wherein each said collision contour is respectively defined by moving the milling tool along and in contact with a respective one of the edges of a sample of the component to be produced.

21. (Currently amended) A method of producing a milled component having a desired milled shape defined by a desired final contour to be produced by milling a raw material with a milling tool, comprising the steps:

a) defining a proposed tool path along which said milling tool will be moved to mill said raw material into [[a]] said desired milled shape of said milled component, wherein said tool path defines the space that will be occupied by said milling tool as said milling tool is moved to mill said raw material;

b) defining at least one collision contour of said desired milled shape of said milled component, wherein each said collision contour establishes a respective boundary which may not be crossed by said proposed tool path to avoid damaging said desired milled shape of said milled component to be produced;

c) comparing said proposed tool path with said at least one collision contour to determine whether said proposed tool path crosses said at least one collision contour;

d) if said proposed tool path is determined to cross said at least one collision contour in said step c), then generating a collision signal indicative of a collision, and in response to said collision signal, revising said proposed tool path to thereby define a final tool path that will not cross said at least one collision contour;

e) if said proposed tool path is determined not to cross said at least one collision contour in said step c), then using said proposed tool path as said final tool path; and

f) milling said raw material by moving said milling tool along said final tool path to produce said milled component.

22. (Previously presented) The method according to claim 21, wherein said collision signal comprises an error message indicating to an operating personnel that said collision has been determined.

23. (Previously presented) The method according to claim 21, wherein said collision signal comprises an error protocol that is carried out if said collision has been determined.

Claim **24** (Canceled).

25. (Previously presented) The method according to claim 21, wherein said step of defining said at least one collision contour comprises moving said milling tool along and in contact with at least one edge of a sample model that has said desired milled shape of said milled component, wherein said at least one edge thereby defines said at least one collision contour.

Claims **26 and 27** (Canceled).

28. (Previously presented) The method according to claim 21, wherein said comparing in said step c) is carried out as an automated comparison.

Claims **29 and 30** (Canceled).

31. (New) A milling method for the production of a structural component from at least one material that is difficult to machine by chip-cutting, while producing depressions with at least one sidewall, whereby a milling tool is moved along at least one defined tool path for the milling, characterized in that, in addition to the or each tool path, at least one collision contour respectively corresponding to an edge of the at least one sidewall of

the structural component to be produced is defined and the position or orientation of the milling tool along the or each tool path relative to the or each collision contour is monitored in an automated comparison of the or each tool path with the or each collision contour to determine whether an expected collision exists between the milling tool and the at least one collision contour corresponding to the edge of the structural component to be produced, and if the expected collision is determined to exist then the position or orientation of the milling tool is changed and/or an error message is generated to avoid the structural component being damaged by the milling tool.

32. (New) The method according to claim 31, wherein each said collision contour respectively corresponds exactly to only one of the edges of the component to be produced, and said at least one collision contour does not collectively define an entire topography of a surface of the structural component to be produced.

33. (New) A method of producing a milled component by milling a raw material with a milling tool, comprising the steps:

a) defining a proposed tool path along which said milling tool will be moved to mill said raw material into a desired milled shape of said milled component, wherein said tool path defines the space that will be occupied

by said milling tool as said milling tool is moved to mill said raw material;

b) defining at least one collision contour of said desired milled shape of said milled component, wherein each said collision contour corresponds to an edge of said desired milled shape of said milled component and establishes a respective boundary which may not be crossed by said proposed tool path to avoid damaging said desired milled shape of said milled component to be produced;

c) comparing said proposed tool path with said at least one collision contour to determine whether said proposed tool path crosses said at least one collision contour;

d) if said proposed tool path is determined to cross said at least one collision contour in said step c), then generating a collision signal indicative of a collision, and in response to said collision signal, revising said proposed tool path to thereby define a final tool path that will not cross said at least one collision contour;

e) if said proposed tool path is determined not to cross said at least one collision contour in said step c), then using said proposed tool path as said final tool path; and

f) milling said raw material by moving said milling tool along said final tool path to produce said milled component.

34. (New) The method according to claim 33, wherein each said collision contour respectively corresponds exactly to only one said edge of said desired milled shape of said milled component, and said at least one collision contour does not collectively define an entire topography of said desired milled shape of said milled component.